REMARKS

As a result of the foregoing amendments, paragraph [062] of the specification has been amended to incorporate proper sequence ID numbers for listed amino acid sequences "MGCC" and "MACC", and claims 4, 10, 18, 24, 32, 38, 46 and 52 have been canceled. No new matter has been entered as a result of this amendment. Entry of these amendments and reconsideration of pending and elected claims 1-3, 5-9, 11-17, 19-23, 25-31, 33-37, 39-45, 47-51 and 53-56 are respectfully requested.

Pending Application Meets the Sequence Requirements of 37 C.F.R. §1.821 Through §1.825

The amendment to paragraph [062] of the specification has overcome the objection to that paragraph for failing to include SEQ ID numbers for the two quatromer amino acids it describes. The paragraph has been amended to include references describing those quatromers as parts of SEQ ID NOs: 2, 4, 6 and 8. Since both quatromers were disclosed as being portions of sequences contained in the sequence disclosure, it is appropriate to describe them as such in the specification. No new sequence listing is needed to describe the two quatromers. See MPEP 2422.03, second to last paragraph.

It is believed that the application now meets all requirements of 37 C.F.R. §1.821 through §1.825, and withdrawal of this objection is respectfully requested.

Allowance of Pending Claims is Not Objectionable Under Double Patenting

The cancellation of claims 4,10, 18, 24, 32, 38, 46, and 52 in this amendment obviates the provisional double-patenting objection made in the Office Action.

Pending Claims are Not Anticipated by Conklin, et al.

Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1, 2, 13, 14, 29, 30, 41 and 42 under 35 U.S.C. §102(b) as being anticipated by Conklin, et al. (Mol Pharm 50:885-890, 1996, hereinafter "Conklin"). The Office Action alleges, incorrectly, that all the limitations of the rejected claims are disclosed, "explicitly or implicitly", by the assays described in Figures 3 and 4 of Conklin.

Claim 1 of the instant application defines a process for identifying a chemical compound which modifies the action of a signal tranduction pathway. See the preamble and step (d), which

specifically recites determining an effect on the signal transduction pathway. In contrast, the experiments outlined in Figures 3 and 4 of Conklin show no application of a compound for testing against the signal transduction pathway. The compounds used in these experiments (Bombesin, Vasopressin, Oxytocin and Isoproterenol) are natural ligands of the G-Protein Coupled Receptors found on the cell surface and serve only to initiate a signal. Signal initiation and transduction of a signal are separate processes, that would not be equated by one of skill in the art. There is nothing taught or suggested by Conklin that would lead one of skill in the art to believe that the Bombesin, Vasopressin, Oxytocin or Isoproterenol used in Conklin's experiments act on the signal transduction pathway taking place inside the cell. Since all pending claims depend from Claim 1, none are anticipated by Conklin.

Pending Claims are Not Anticipated by Coward, et al.

Applicants respectfully request reconsideration and withdrawal of the rejection of claims 1, 2, 13-16, 27-30, 41-44, 55 and 56 under 35 U.S.C. §102(b) as being anticipated by Coward, et al. (Anal Biochem 270:242-248, 1999, hereinafter "Coward"). The Office Action alleges, incorrectly, that all the limitations of the rejected claims are disclosed by Coward.

As with Conklin, above, all the compounds used by Coward are natural ligands (opioids) of the receptors on the cell surface. There is no teaching or suggestion in Coward that would lead one of skill in the art to believe that any compound used in Coward acts on the signal transduction pathway, as required by the process of instant claim 1. Since all pending claims depend from Claim 1, none are anticipated by Coward.

Pending Claims are Not Obvious Over Combination of Conklin PCT Application and Conklin

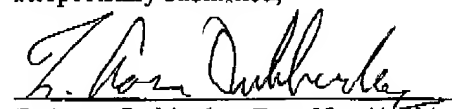
Applicants respectfully request reconsideration and withdrawal of the rejection of all pending claims under 35 U.S.C. §103(a) as being unpatentable over Conklin, et al. Patent Publication (WO 99/05177, 04 Feb. 1999, hereinafter "Conklin PCT Application") in view of Conklin. None of Conklin, Conklin PCT Application or their combination teach or suggest the instantly assay to determine compounds which inhibit signal transduction.

As discussed above, Conklin fails to teach or suggest any method for determining inhibitors of signal transduction. The Conklin PCT Application also fails to teach or suggest this. The Conklin PCT Application discloses modified G protein α subunits and their use in "...compositions and

methods for identifying agents that modulate G-protein-coupled receptors...", see Summary of the Invention, page 3. Again, there is no teaching or suggestion of the instantly claimed method, particularly for step d) of instant claim 1. That step requires determining an effect of a compound on the signal transduction pathway. As with the other references discussed above, the Conklin PCT Application is directed to assays for determining whether a receptor can initiate a signal, not whether transduction of that signal is modified. Since the Conklin and Conklin PCT Application are duplicative in their teaching to assay for receptor effects, their combination cannot reach farther than either reference singly. Accordingly, the combination fails to teach or suggest the instantly claimed subject matter.

Applicants respectfully submit that the application is now in condition for allowance and request prompt notice thereof.

Respectfully submitted,



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